

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P299114

Luminaire Tested: **GLNA-AF-04-LED-E1-SL2-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299114
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24286)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-04-LED-E1-SL2-7030
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 3000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Narrow OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22673.9 lumens
Efficiency: N/A
Efficacy: 100.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G4

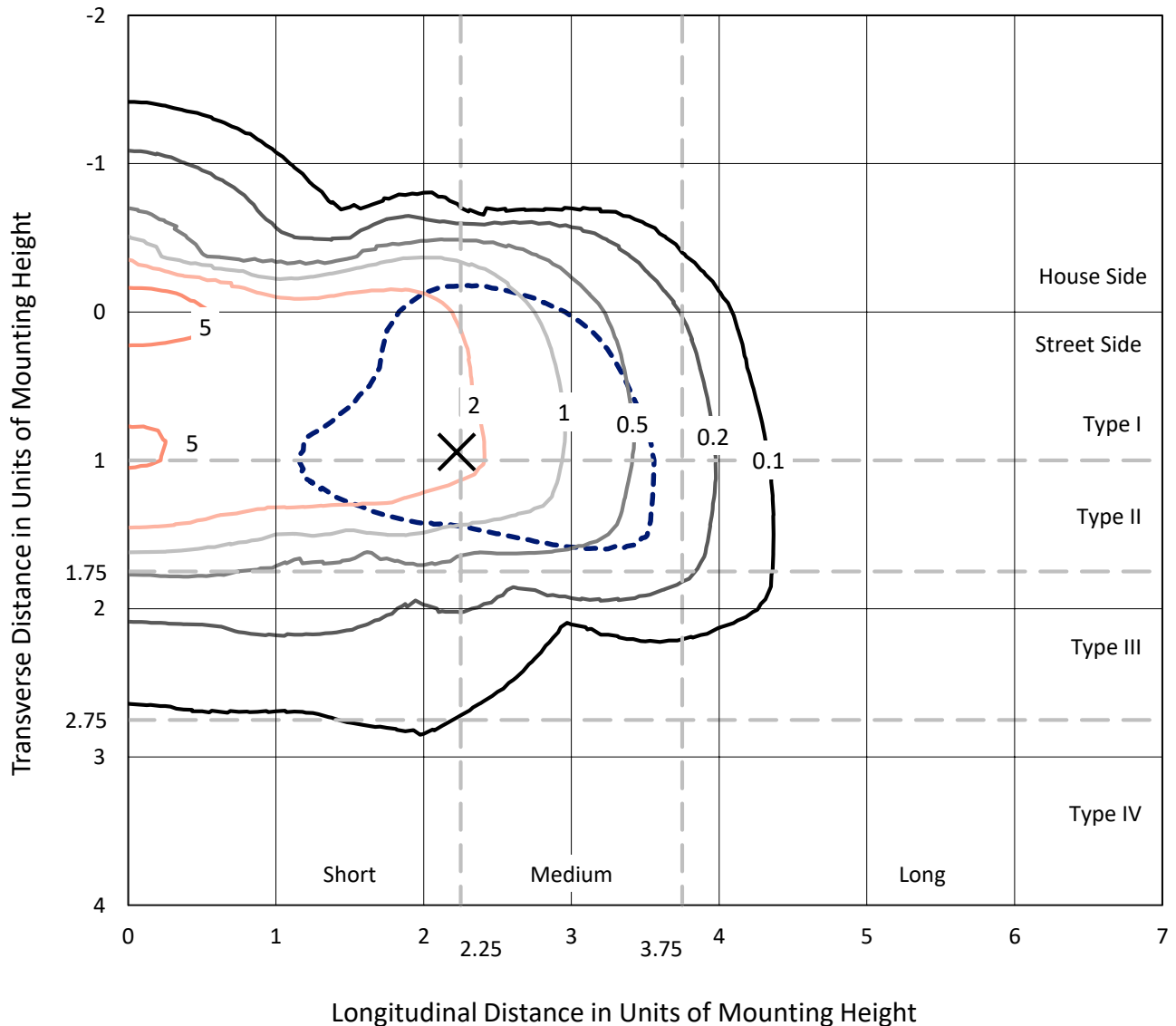
Input Watts (W): 225
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

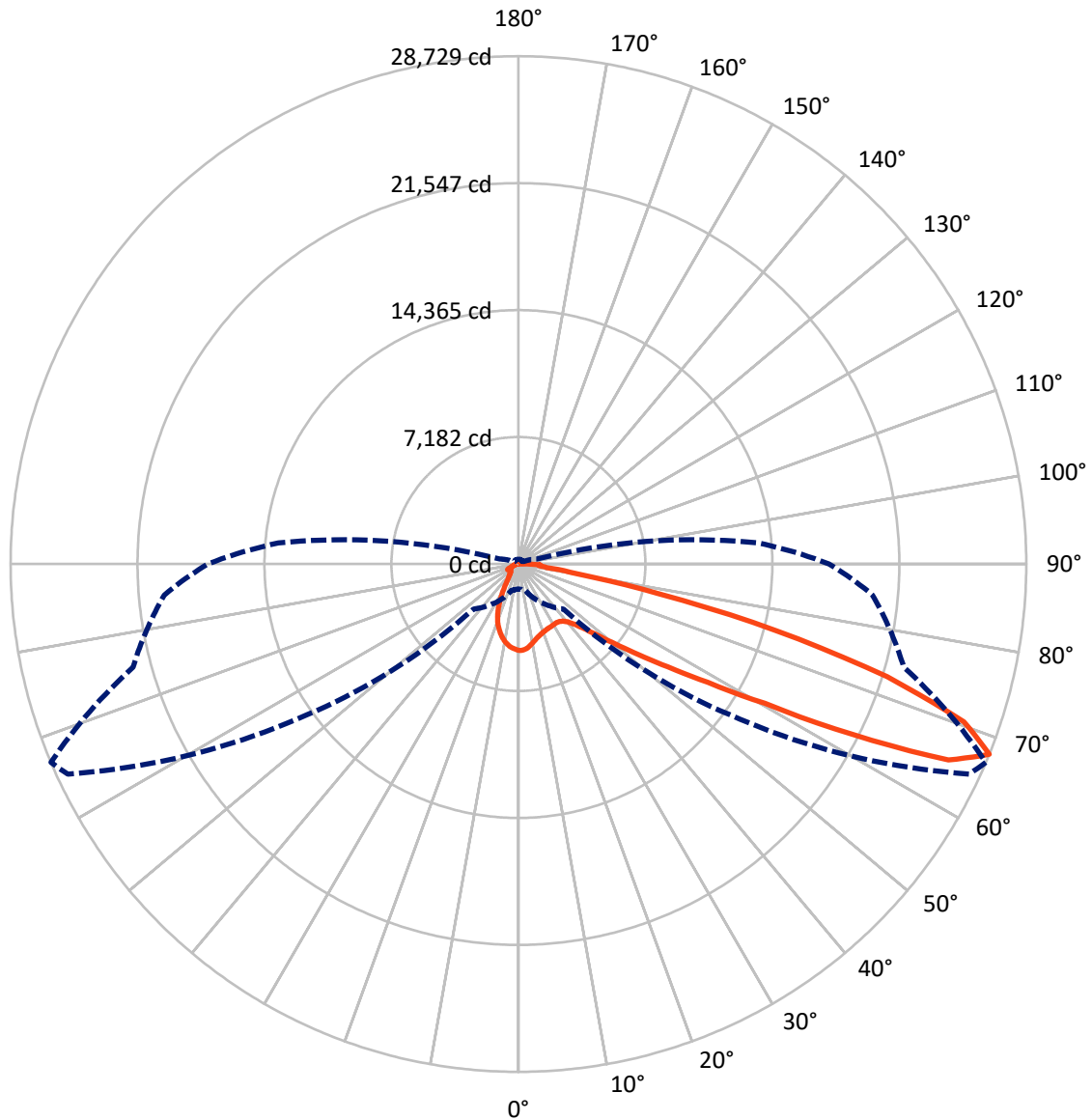
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.8 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3756.8	0.0	3756.8
	% Fixture	16.6	0.0	16.6
Street Side	Lumens	18917.1	0.0	18917.1
	% Fixture	83.4	0.0	83.4
Total	Lumens	22673.9	0.0	22673.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	417.3	1.8
10°-20°	965.5	4.3
20°-30°	1308.7	5.8
30°-40°	1860.4	8.2
40°-50°	3112.6	13.7
50°-60°	4924.1	21.7
60°-70°	6272.8	27.7
70°-80°	3285.7	14.5
80°-90°	527.0	2.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	22673.9	100.0
0°-180°	22673.9	100.0

Coefficient of Utilization



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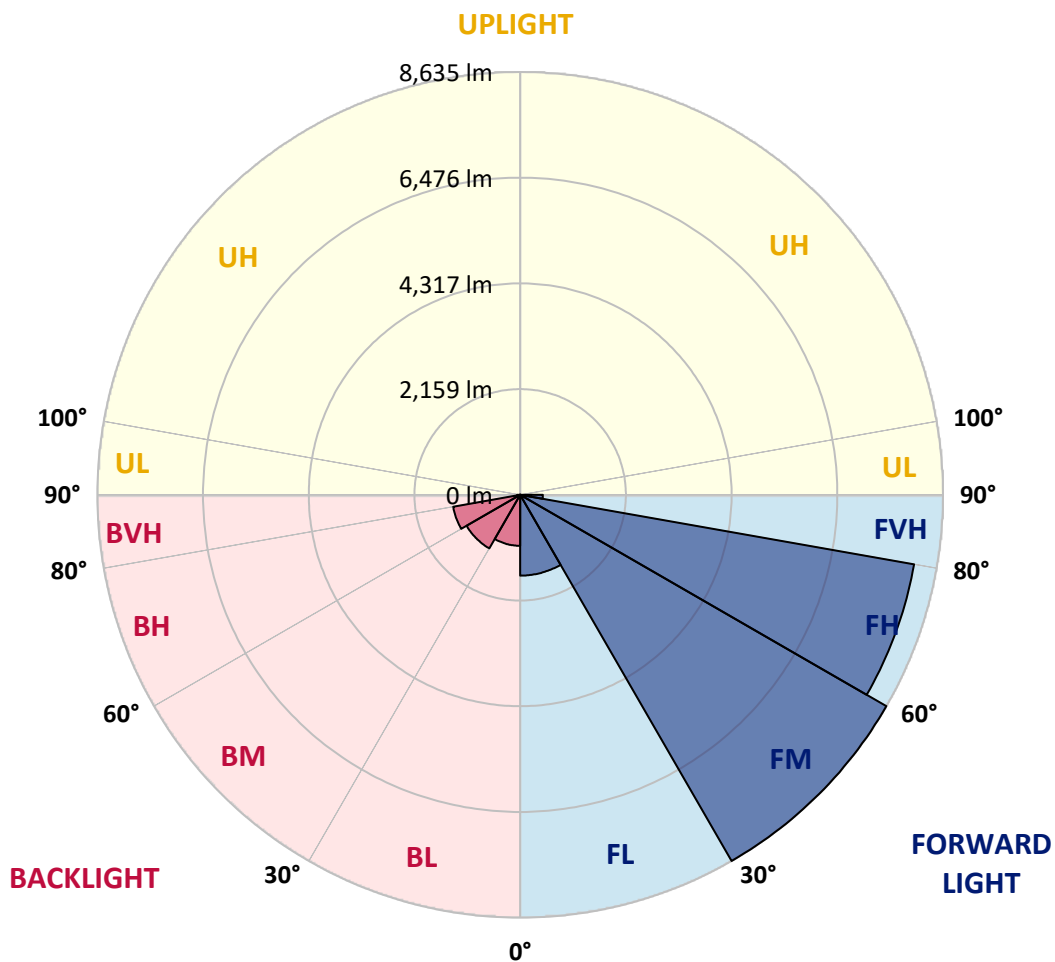
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1650.1	7.3			
FM	(30°-60°)	8634.7	38.1			
FH	(60°-80°)	8168.9	36.0			G4/12000
FVH	(80°-90°)	463.4	2.0			G3/500
BL	(0°-30°)	1041.3	4.6	B3/2500		
BM	(30°-60°)	1262.4	5.6	B2/2500		
BH	(60°-80°)	1389.5	6.1	B3/2500		G3/2500
BVH	(80°-90°)	63.6	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	4890.7	4890.7	4890.7	4890.7	4890.7	4890.7	4890.7	4890.7	4890.7	4890.7	4890.7
2.5°	4689.4	4697.3	4721.9	4737.5	4808.0	4838.2	4859.4	4880.6	4884.0	4894.1	4884.0
5°	4197.5	4214.2	4260.1	4311.5	4447.9	4555.3	4668.2	4785.6	4806.9	4882.9	4904.1
7.5°	3816.2	3811.7	3849.7	3911.2	4051.0	4199.7	4397.6	4631.3	4677.1	4848.2	4931.0
10°	3537.8	3534.4	3574.7	3638.4	3771.5	3912.3	4136.0	4455.8	4520.6	4793.4	4956.7
12.5°	3332.0	3333.2	3373.4	3443.8	3579.1	3721.1	3948.1	4285.8	4368.5	4729.7	4983.5
15°	3195.6	3204.6	3237.0	3311.9	3443.8	3585.9	3808.4	4158.3	4251.1	4679.4	5013.7
17.5°	3149.8	3164.3	3175.5	3230.3	3343.2	3485.2	3703.3	4064.4	4162.8	4644.7	5040.5
20°	3192.3	3209.0	3187.8	3206.8	3278.4	3403.6	3620.5	3990.6	4091.2	4605.6	5043.9
22.5°	3374.5	3390.2	3327.6	3272.8	3268.3	3344.3	3552.3	3932.5	4036.5	4576.5	5045.0
25°	3695.4	3705.5	3600.4	3472.9	3348.8	3323.1	3504.2	3892.2	4002.9	4550.8	5023.8
27.5°	4089.0	4096.8	3976.1	3788.2	3538.9	3373.4	3487.5	3868.7	3983.9	4528.4	4988.0
30°	4567.6	4604.5	4442.3	4205.3	3841.9	3522.1	3521.0	3856.4	3962.7	4490.4	4917.5
32.5°	5057.3	5073.0	4961.2	4720.8	4250.0	3783.8	3614.9	3865.4	3957.1	4444.6	4828.1
35°	5553.8	5573.9	5501.2	5307.8	4808.0	4167.3	3798.3	3917.9	3991.7	4428.9	4765.5
37.5°	6196.7	6223.5	6122.9	5899.3	5486.7	4687.2	4103.5	4049.9	4098.0	4473.6	4746.5
40°	7213.1	7200.8	6906.7	6573.5	6229.1	5352.5	4539.6	4273.5	4301.5	4617.9	4804.6
42.5°	8396.1	8365.9	7859.4	7336.1	7045.4	6157.6	5116.6	4661.5	4655.9	4901.9	5009.2
45°	9339.8	9315.2	8859.0	8213.8	7981.2	7074.4	5862.4	5239.6	5198.2	5352.5	5387.2
47.5°	9850.7	9851.9	9589.1	9062.5	9056.9	8239.5	6820.6	6075.9	6004.4	6077.0	6040.2
50°	9671.8	9695.3	9667.4	9499.7	10038.6	9766.9	8071.8	7242.1	7097.9	7169.5	7027.5
52.5°	8806.4	8836.6	9002.1	9259.3	10451.2	11612.9	9910.0	8691.2	8523.5	8497.8	8340.1
55°	7272.3	7309.2	7646.9	8345.7	10107.9	12852.9	12810.4	10538.4	10271.2	10028.5	9961.4
57.5°	5012.6	5074.1	5617.5	6655.1	8997.6	13227.5	16264.4	13171.6	12628.2	11780.6	11796.3
60°	2825.5	2897.1	3537.8	4480.4	6756.9	12820.5	18892.0	17160.0	16012.8	13832.4	13948.7
62.5°	1796.8	1874.0	2360.4	3112.9	4054.3	10629.0	19968.7	22704.8	21247.9	16361.6	16475.7
65°	1454.7	1488.2	1717.5	2569.5	2944.0	6403.5	19151.4	27272.4	26729.0	19571.8	19039.6
67.5°	1420.0	1431.2	1549.7	2156.9	2823.3	3599.3	15275.9	28126.6	28729.3	22569.5	20107.4
70°	1403.3	1442.4	1746.5	2058.5	2703.6	3035.7	9179.9	25785.3	26736.8	23353.3	18686.2
72.5°	680.9	678.7	878.9	1861.7	3045.8	3148.7	4716.3	20863.2	21818.1	20232.6	15355.3
75°	549.0	502.0	479.7	682.1	2928.4	3251.5	3005.5	14355.7	15046.7	13565.2	9439.3
77.5°	521.0	465.1	426.0	427.1	1237.8	3448.3	2546.0	7945.4	8146.7	6127.4	2586.2
80°	431.6	380.2	352.2	396.9	599.3	3284.0	2752.8	3595.9	3299.6	1505.0	861.0
82.5°	299.7	272.8	265.0	333.2	479.7	2340.3	3201.2	1932.1	1620.2	753.6	531.1
85°	191.2	163.2	181.1	242.6	373.5	1080.1	3297.4	1506.1	1197.5	478.6	299.7
87.5°	88.3	71.6	89.5	134.2	243.8	372.3	3137.5	1691.7	1233.3	252.7	189.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4890.7	4890.7	4890.7	4890.7	4890.7	4890.7	4890.7	4890.7	4890.7	4890.7	4890.7
2.5°	4892.9	4871.7	4854.9	4823.6	4789.0	4755.4	4725.2	4687.2	4676.0	4666.0	4681.6
5°	4908.6	4887.4	4825.9	4729.7	4623.5	4524.0	4424.4	4339.5	4286.9	4257.8	4274.6
7.5°	4932.1	4901.9	4774.4	4597.8	4406.6	4232.1	4052.1	3907.9	3801.7	3751.3	3765.9
10°	4953.3	4895.2	4687.2	4422.2	4142.7	3883.3	3599.3	3364.5	3190.0	3098.3	3120.7
12.5°	4962.3	4869.5	4565.3	4203.1	3819.5	3439.4	3021.2	2670.1	2419.6	2328.0	2308.9
15°	4971.2	4840.4	4431.2	3953.7	3429.3	2891.5	2305.6	1885.2	1677.2	1631.4	1621.3
17.5°	4973.5	4790.1	4279.1	3683.1	2972.0	2239.6	1576.6	1309.3	1310.5	1384.2	1393.2
20°	4950.0	4715.2	4094.6	3346.6	2424.1	1548.6	1082.4	1036.5	1205.3	1389.8	1412.2
22.5°	4896.3	4615.7	3885.5	2954.1	1796.8	1019.7	837.5	887.8	1105.8	1331.7	1357.4
25°	4828.1	4494.9	3638.4	2499.0	1189.7	729.0	702.2	763.7	911.3	1062.2	1076.8
27.5°	4735.3	4351.8	3361.1	1978.0	772.6	600.4	618.3	659.7	720.1	787.2	793.9
30°	4615.7	4180.7	3064.8	1442.4	583.7	540.1	565.8	588.1	613.9	651.9	655.2
32.5°	4478.1	4016.3	2760.7	996.3	517.7	508.8	528.9	540.1	560.2	583.7	585.9
35°	4363.0	3859.8	2445.4	704.4	489.7	485.3	498.7	503.2	522.2	547.9	550.1
37.5°	4297.0	3732.3	2120.0	568.0	470.7	464.0	471.9	471.9	498.7	536.7	542.3
40°	4301.5	3661.9	1794.6	513.2	455.1	446.1	447.3	447.3	481.9	523.3	526.6
42.5°	4423.3	3679.8	1506.1	492.0	442.8	432.7	427.1	430.5	459.6	486.4	488.6
45°	4709.6	3806.1	1235.5	478.6	430.5	427.1	414.8	413.7	424.9	437.2	437.2
47.5°	5179.2	4055.5	1052.2	469.6	420.4	419.3	404.8	390.2	389.1	393.6	393.6
50°	5942.9	4484.8	929.2	459.6	413.7	404.8	388.0	365.6	357.8	361.2	361.2
52.5°	7087.8	5250.7	882.2	446.1	399.2	384.6	365.6	343.3	336.6	337.7	337.7
55°	8589.5	6427.0	875.5	430.5	383.5	360.0	344.4	327.6	319.8	322.0	322.0
57.5°	10424.3	8053.9	995.1	405.9	362.3	335.4	326.5	315.3	309.7	313.1	312.0
60°	12655.0	10182.8	1475.9	380.2	341.0	313.1	313.1	304.1	299.7	303.0	301.9
62.5°	15224.5	12628.2	2075.3	361.2	318.7	295.2	299.7	295.2	290.7	293.0	291.8
65°	17503.2	14221.5	1943.3	346.6	296.3	278.4	286.2	284.0	280.7	282.9	281.8
67.5°	17569.2	13631.2	1091.3	331.0	275.1	261.6	272.8	271.7	269.5	271.7	270.6
70°	15679.6	11510.1	615.0	301.9	252.7	241.5	257.2	256.1	253.8	258.3	257.2
72.5°	12562.2	8352.4	449.5	266.1	230.3	220.3	238.2	237.0	237.0	243.8	240.4
75°	7228.7	4298.1	358.9	228.1	206.9	199.0	214.7	215.8	218.0	227.0	220.3
77.5°	2060.7	1339.5	293.0	193.4	177.8	174.4	190.1	192.3	193.4	203.5	194.6
80°	765.9	617.2	241.5	162.1	145.4	146.5	161.0	164.4	165.5	175.5	164.4
82.5°	488.6	407.0	195.7	125.2	114.0	112.9	130.8	135.3	135.3	136.4	129.7
85°	285.1	243.8	147.6	90.6	80.5	77.2	97.3	105.1	101.8	99.5	95.0
87.5°	191.2	167.7	90.6	50.3	43.6	41.4	57.0	62.6	60.4	57.0	53.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)